

tion to a master processor. The teachings may be implemented in any single one or combination of those multiple processors.

**[0086]** In general, the various embodiments may be implemented in hardware or special purpose circuits, software, logic or any combination thereof. For example, some aspects may be implemented in hardware, while other aspects may be implemented in firmware or software which may be executed by a controller, microprocessor or other computing device, although the invention is not limited thereto. While various aspects of the invention may be illustrated and described as block diagrams, flow charts, or using some other pictorial representation, it is well understood that these blocks, apparatus, systems, techniques or methods described herein may be implemented in, as non-limiting examples, hardware, software, firmware, special purpose circuits or logic, general purpose hardware or controller or other computing devices, or some combination thereof.

**[0087]** Embodiments of the inventions may be practiced in various components such as integrated circuit modules. The design of integrated circuits is by and large a highly automated process. Complex and powerful software tools are available for converting a logic level design into a semiconductor circuit design ready to be etched and formed on a semiconductor substrate.

**[0088]** The foregoing description has provided by way of exemplary and non-limiting examples a full and informative description of the best method and apparatus presently contemplated by the inventors for carrying out the invention. However, various modifications and adaptations may become apparent to those skilled in the relevant arts in view of the foregoing description, when read in conjunction with the accompanying drawings and the appended claims. However, all such and similar modifications of the teachings of this invention will still fall within the scope of this invention.

**[0089]** It should be noted that the terms “connected,” “coupled,” or any variant thereof, mean any connection or coupling, either direct or indirect, between two or more elements, and may encompass the presence of one or more intermediate elements between two elements that are “connected” or “coupled” together. The coupling or connection between the elements can be physical, logical, or a combination thereof. As employed herein two elements may be considered to be “connected” or “coupled” together by the use of one or more wires, cables and/or printed electrical connections, as well as by the use of electromagnetic energy, such as electromagnetic energy having wavelengths in the radiofrequency region, the microwave region and the optical (both visible and invisible) region, as several non-limiting and non-exhaustive examples.

**[0090]** Furthermore, some of the features of the preferred embodiments of this invention could be used to advantage without the corresponding use of other features. As such, the foregoing description should be considered as merely illustrative of the principles of the invention, and not in limitation thereof.

What is claimed is:

1. A method comprising:

receiving, with a device of a communication network, an indication of advanced services of an area associated with the communication network;

in response to the indication of advanced services, determining a relative performance improvement of the advanced services for the device; and

based on the determined relative performance improvement, setting an indication flag at the device.

2. The method of claim 1, wherein the advanced services comprise long term evolution network advanced services.

3. The method of claim 1, wherein the advanced services comprises carrier aggregation services.

4. The method of claim 1, wherein the determining relative performance comprises determining that an available aggregated bandwidth of the carrier aggregation services is higher than current available bandwidth of the device.

5. The method of claim 1, wherein the device is using single carrier service, and wherein the determining relative performance comprises determining that an available aggregated bandwidth of the carrier aggregation services is higher than the single carrier service.

6. The method of claim 1, wherein the determining relative performance comprises determining that a parallel number of data streams of the carrier aggregation services is using a multiple input multiple output configuration of two or more antenna.

7. The method of claim 1, wherein the determining relative performance comprises determining whether the carrier aggregation services of the area are valid for the device, the method further comprising determining whether the device supports the multiple input multiple output configuration of the carrier aggregation services of the area.

8. The method of claim 1 performed by a non-transitory computer readable medium embodying computer program code, and the computer program code executed by at least one processor.

9. An apparatus comprising:

at least one processor; and

at least one memory including computer program code, where the at least one memory and the computer program code are configured, with the at least one processor, to cause the apparatus to at least:

receive an indication of advanced services of an area associated with the communication network;

in response to the indication of advanced services, determine a relative performance improvement of the advanced services for the device; and

based on the determined relative performance improvement, set an indication flag at the device.

10. The apparatus of claim 9, wherein the advanced services comprise long term evolution network advanced services.

11. The apparatus of claim 9, wherein the advanced services comprises carrier aggregation services.

12. The apparatus of claim 9, wherein the determining relative performance comprises determining that an available aggregated bandwidth of the carrier aggregation services is higher than current available bandwidth of the device.

13. The apparatus of claim 9, wherein the device is using single carrier service, and wherein the determining relative performance comprises determining that an available aggregated bandwidth of the carrier aggregation services is higher than the single carrier service.

14. The apparatus of claim 9, wherein the determining relative performance comprises determining that a parallel number of data streams of the carrier aggregation services is using a multiple input multiple output configuration of two or more antenna.

15. The apparatus of claim 9, wherein the determining relative performance comprises determining whether the car-